

DETAILED ACTION

Claim Objections

1. Claims 11 and 12 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claims 11 and 12 fail to limit the claim on which they depend. How the first and second wirings are used that have already been set forth in the claims to which these claims depend does not further limit the structural attributes of the instant claims as provided. In an apparatus claim, the claim must be limited by structural features, rather than intended use.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 16 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 lacks antecedent basis for the phrase "said partial current passing region". The claim on which this claim depends does not state that the current passing region is "partial".

Claim 17 lacks antecedent basis for the phrase "said second wirings". The claims on which this claim is based do not mention a second wiring. Further, the instant claims

1 and 14 do not recite a first wiring, only "feeder wirings", therefore this aspect of the instant claim is also vague and indefinite.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-7, 9, 13, 14, 22-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Ackley et al (6068818).

Ackley et al disclose a disk shaped substrate with reaction regions (regions surround and including connectors 84 comprising electrodes provided in the reaction regions, a current passing portion at a central portion of the substrate (electrode 92), and feeder wirings for feeding electric currents from the current passing portion to the electrodes, wherein the feeder wiring is included in a first wiring led out toward the circumference from the current passing portions, a second wiring branched from the first wiring (concentric return electrode 90 as the second wiring) and a third wiring branched further from a second wiring (traces 86 as the third wiring). The device is fully capable of having a voltage impressed at current passing portions (electrodes 92) which are passes through the feeder wirings to the electrodes (connectors 84) to generate electric fields. The third wirings are viewed to be extended from the second wiring in a radial directions and also as a terminal feeder wiring connected to the electrodes. The extensions of the center lines of the third wirings pass through the center of the

substrate and these wirings are capable of functioning as electrodes. The electrodes (connectors 84) are arranged as a pair opposed to each other and are connected respectively to different third wirings alternately branched from the second wirings.

Ackley et al anticipates the applicants instant invention as shown by way of the disclosure set forth above.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-7, 9, 14, 22, 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Warren et al (2002/0098332).

Warren et al disclose in Figure 1, a disk shaped substrate provided with reaction regions and comprising electrodes (contact pads 13), a current passing portion provided at a central portion of the substrate (electrodes 12 as current passing portion), and feeder wirings (wires 16, when branched are the feeder wirings), wherein the feeder wiring is includes a first, second and third feeder wiring (wire 16 branched into three distinct sections). The device of Warren et al is fully capable of having voltage impressed at current passing portion (electrodes 12) which is passed through the feeder wirings to the electrodes (contact pads 14) to generate electric fields. The third wirings are viewed to be extended from the second wiring in a radial direction and also as terminal feeder wirings connected to the electrodes. The extensions of the center lines

of the third wirings pass through a center of the substrate. and the third wirings are capable of functioning as electrodes. The grouped units of the device have a predetermined number of reaction regions and are arranged in a pattern of concentric circles or a spiral line and are arranged on radial lines passing through the center of the substrate.

The prior art of Warren et al anticipate the applicants instant invention as set forth above with respect to the instant claims as presented.

Allowable Subject Matter

8. Claims 8, 10, 15-21, 25-28 are allowable over the prior art of record.
9. Claims 8, 10, 15-21, 25-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
10. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach and/or suggest the second wirings being led out alternately from the adjacent first wirings, the second wirings being connected to a plurality of first wirings, the current passing portion being divided into a plurality of independent partial current passing regions, at least one of the first wiring being extended from each of a partial current passing regions, a hole being formed in the central portion of the current passing portion, a direction positioning portion being found in the hole, that the wiring layers are coated with an insulations layer, or a conductive film being formed on the dies of the wiring layer that is transparent or semi-transparent to rays of an excitation beam.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bruce F. Bell whose telephone number is 571-272-1296. The examiner can normally be reached on Monday-Friday 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BFB
April 12, 2010

/Bruce F. Bell/
Primary Examiner, Art Unit 1795